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REPORT No 13

ANALYSIS OF ISSUES RELATED TO THE IMPLEMENTATION OF PILOT PROJECT IN LORI MARZ

Prepared by

PADCO Armenia Social Transition Program

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PLANNING AND DEVELOPMENT COLLABORATIVE INTERNATIONAL

Development Solutions for the 21st Century

PREFACE

Under USAD Contract No. 111-C-00-00-00114-00, PADCO is providing assistance to the Government of Armenia on social sector reform issues. Under Component 3 of this project, PADCO will select and implement at selected sites, pilot programs to test approaches to optimizing the organizational structure of health care facilities. Under Component 2, PADCO will also develop and implement a series of pilot programs to test new approaches to the organization and delivery of social assistance and social insurance services.

Optimization of health care facilities is a priority for the Ministry of Health. In 2000, in collaboration with the AST project and other international donors, the Ministry of Health began to create a Center for Responsibility to develop a conceptual approach to optimization and to manage the implementation of optimization programs region by region throughout Armenia.

A potential site to test the implementation of optimization is Lori Marz. It is one of the pilot regions identified by USAID for the AST program. Preliminary meetings in Vanadzor between AST resident advisor Dean Millslagle and officials at the Marz and local government level and with officials in health care facilities indicates a strong interest in participating in a pilot program to test approaches to health care optimization.

At the same time, AST resident advisor Brian Kearney, supported by ST AST consultant Beate Gross, has been meeting with local and Marz level officials on the design and implementation of pilot programs to test new ways to deliver social benefits and social services. It is the intention of the AST to develop an integrated pilot program that will enable the implementation of a comprehensive pilot program involving both health facilities and social services.

This report, prepared by AST resident advisor Dean Millslagle, describes the process of design of the health care component of this comprehensive program. In a parallel report, the AST team will describe the design of a social services pilot program in Lori Marz.

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ACRONYMS AND TERMS USED IN THIS REPORT

AST = The Armenia Social Transition Program, managed by PADCO under contract to USAID

BBP = The Basic Benefits Package of medical services that are provided at no cost to eligible families

DRG = Diagnostic related Group – a system of classifying patient conditions receiving treatment through the health care system and used as the basis for reimbursing health care providers for the services delivered to patients

FGP = Family Group Practice in which a group of specially trained physicians and nurses provide care to outpatients and only refer patients if treatment of their condition is beyond their capacity

MIS = Management Information System – the system of collecting, compiling and reporting data on aspects of an administrative system

MOH = The Ministry of Health of the Republic of Armenia

MOSS = Ministry of Social Security of the Republic of Armenia

NGO = Non Governmental Organization – created to meet public needs outside the framework of government agencies

NIH = The National Institute for Health

PHC = Primary Health Care – the first point of contact with the health system where patients are either treated or referred to specialized facilities. An FGP is the intended evolutionary development for the PHC component of Armenia's health care system

PHCP = Primary Health Care Provider, an organization created to provide primary health care. A PHCP may be an NGO, a private for profit firm, or an Armenian joint stock company wholly owned by state or local government

Prykaze = Rules and regulations in the health care system

Sanipet =

SHA = The State Health Agency – the basic contractor for health care services in Armenia

STI = Sexually Transmitted Diseases

USAID = The United States Agency for International Development

1. AN APPROACH TO OPTIMIZING HEALTH CARE SERVICES IN ARMENIA

1.1. INTRODUCTION

Optimization of health care facilities is a priority for the Ministry of Health. In 2000, in collaboration with the AST project and other international donors, the Ministry of Health began implementing a Center for Responsibility to develop a conceptual approach to optimization and to manage the implementation of optimization programs region by region throughout Armenia.

A potential site to test the implementation of optimization is Lori Marz. It is one of the pilot regions identified by USAID for the AST program. Preliminary meetings in Vanadzor between the AST team and officials at the Marz and local government level and with officials in health care facilities indicates a strong interest in participating in a pilot program to test approaches to health care optimization.

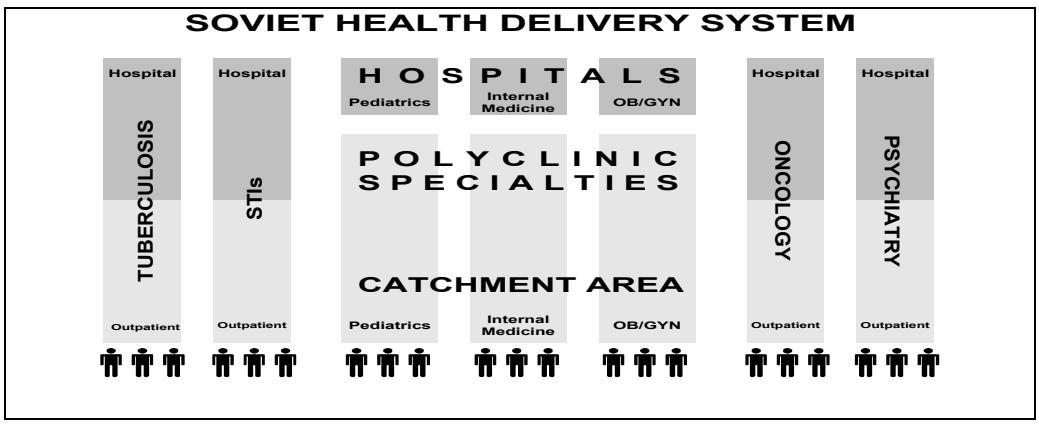
At the same time, the AST team has been meeting with local and Marz level officials on the design and implementation of pilot programs to test new ways to deliver social benefits and social services. It is the intention of the AST to develop an integrated pilot program that will enable the implementation of a comprehensive pilot program involving both health facilities and social services. Recommendations will be provided in a separate report.

This report describes the process of design of the health care component of this comprehensive program. In a parallel report, the AST team will describe the design of a social services pilot program in Lori Marz.

1.2. THE LEGACY OF THE STRUCTURE OF THE SOVIET HEALTH CARE SYSTEM

Armenia's health care system today, like other members of the former Soviet Union, retains many of basic characteristics of the Soviet-wide system. During the Soviet era, the health care system was designed, implemented, financed, and controlled from central authority in Moscow. Moscow defined needs, designed the systems to meet those needs, and provided the funding to finance care delivery. There was no room to consider local needs or to evaluate the sustainability and reasonableness of costs.

The status of administrators and practitioners in this system was measured by how many facilities or staff they controlled. Normatives were established for the numbers of different types of specialists per 1,000 people served. This led to the proliferation of specialists, and of specialized medical facilities and of departments in those facilities. Outpatient primary care was almost eliminated. Too many specialists were trained and too many facilities were constructed – creating an impossible burden to national budgets. The figure below shows the structure of the Soviet health delivery system, still largely maintained in Armenia today. It is characterized by vertical programs and excess physical capacity. Today, only one out of every three hospital beds is occupied at any time. Specialized hospitals exist for many programs such as TB, STI's, Cancer, and Psychiatry/Narcology (dispensaries) as well as many other specialties, particularly at the republican level. Primary Health Care -- except in rural areas – is provided from separate polyclinics contributing to the excess capacity. The picture presented below might be considered an inverted pyramid – with a tiny number of primary health care physicians or group practices at the bottom, but with a heavy and expensive array of specialized facilities and practitioners at the top.



1.3. THE PROCESS OF REFORM: LESSONS FROM OTHER INDEPENDENT REPUBLICS

The Ministry of Health is now addressing these inherited problems through a program of health care optimization. The goal is to create a financially sustainable system that provides high quality health care to the people of Armenia. In developing a permanent system that still meets the basic health care needs of the population, there are some useful lessons for Armenia from other independent states, such as Kyrgyzstan and Kazakhstan, which began the optimization process several years ago. Clearly, Armenia needs to develop a system that meets the specific needs and expressed policies of Armenia. But in developing the details of an Armenian approach, the lessons from Kyrgyzstan and Kazakhstan can be useful.

When Kyrgyzstan began its reforms, 90% of the money spent in the health care system was spent on specialist inpatient services – the expensive "top" layer of the pyramid. Only 10% was spent in the cheaper but much smaller bottom layer of the pyramid – on outpatient, or primary, care. At the end of the reforms, 80% of money was spent on outpatient primary care and only 20% on inpatient care. The new, flexible outpatient treatment centers were knows as Family Practice Centers. Priorities were inverted by training and equipping teams of primary care providers throughout the nation. These new Primary Health Care (PHC) facilities and practitioners were allocated among communities to ensure that there was one practitioner for every 5,400 urban population or for every 7,200 rural population.

People requiring specialized health care were required to first visit their local PHC provider – a step that the Ministry of Health in Armenia is already beginning to implement for patients who want government reimbursement for their health care costs. The local PHC would refer those patients to inpatient facilities, diagnostic facilities, and specialists based on a preliminary assessment of the patient's needs. This increased the share of overall health care funding spent through PHCs, which, when staffed by properly trained PHC physicians and nurses – can provide high quality care at a lower cost than specialized facilities. These structural reforms in Kyrgyzstan were accompanied by financial reforms. Health care providers were paid for treatments based on average costs for the type of treatment provided – known as Diagnostic Related Groups. Prices for treatments were set based on a realistic examination of cost data from different facilities.

Implementing these changes was based on an agreement by national policymakers on a basic benefits package of services that will be provided to people at no cost that was realistic and affordable. Kyrgyzstan's reforms had to overcome many obstacles, including:

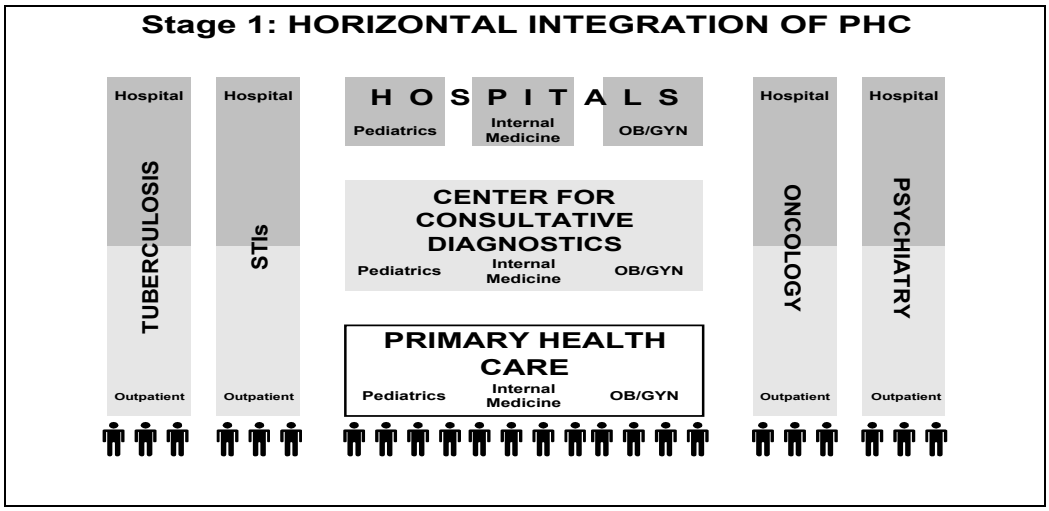
1. The evolution of the new Family Practices was hampered by the system of rigid and unrealistic regulations administered by Sanitary Stations. One way in which these could be relaxed was through the declaration of pilot health care programs under which some of the rules could be relaxed for a trial period (up to three years).
2. Few physicians trained in soviet-style medical schools were able to provide the range of medical services offered in Family Practice outpatient centers. Training physicians in primary health care skills was a gradual process, requiring continuous training (clinical and theoretical) over two years. To allow for this training period, funding policies were also gradually adjusted reflecting the increasing capability of the Primary Health Care centers and corresponding reductions in rates of referral.
3. Administrators and practitioners in existing polyclinics and hospitals felt that their jobs, their status, and their funding were threatened by increasing dependence on referrals from Family Practice centers. This was addressed through intensive education, retraining and public awareness of the advantages of the new system.

1.4. A THREE-STEP APPROACH TO OPTIMIZATION

Kyrgyzstan implemented its reforms in three stages.

Stage 1: Building the Foundations for Reform

Stage 1 was devoted to building the foundations for the new system – analyzing the health delivery system, building capacity for reform, designing pilot programs, and beginning to create new primary health care practices (PHCPs). Family practice programs were introduced by first merging the three catchment area physicians (internists, pediatricians, and ob/gyns) into integrated new PHCPs – illustrated in the figure below:

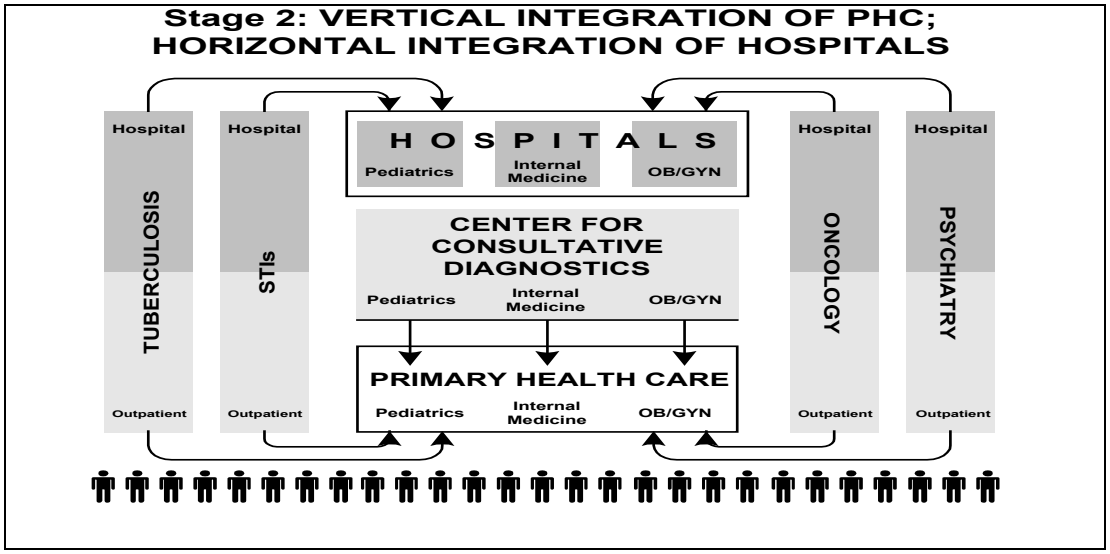


To demonstrate this new system and to test ways to implement it, Kyrgyzstan established pilot programs. These pilot programs were intended to meet seven goals: 1) improving the regulatory framework within which health care facilities and practitioners operated; 2) building institutional capacity of local governments and NGOs to support the system; 3) optimizing the structure of health facilities; 4) expanding the scope and strengthening the capacity of PHCPs; 5) redefining population rights and responsibilities; 6) strengthening provider payment, information, and quality control systems; and 7) enhancing health provider management and clinical and financial information systems. This foundation-building stage lasted about two years. Stage 1 also included forming new PHCPs, facilitating the provision of training, or establishing new health information systems. The Ministry of Health played a key role in embodying information from the pilot sites into changes in national policy.

During the pilot projects, existing medical facilities and resources were reviewed – using basic demographic data to identify the populations to be served by the restructured PHCPs. Optimization of resources and facilities required two main tasks: 1) creating new PHCPs and 2) rationalizing the health delivery system. In remote rural areas, creating new PHCPs required minimal restructuring and largely involved converting existing rural ambulatory centers to PHCPs. In urban areas, significant restructuring was required. The urban PHCP model that was adapted in Kyrgyzstan involved merging polyclinics and hospitals (adult, women, and children) into "mixed" polyclinics to create larger PHCPs and, in other locations, creating several smaller PHCPs within existing polyclinics and in the communities.

Stage 2: Strengthen PHCPs and Rationalize Facilities

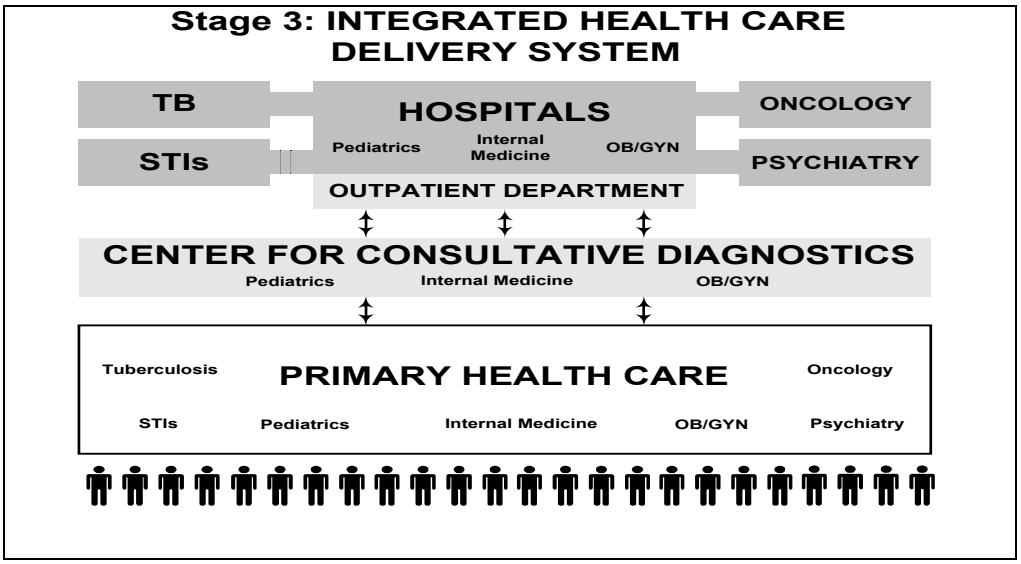
In Kyrgyzstan, the second stage in inverting the health delivery systems pyramid was to strengthen PHCPs, enabling them to expand their range of services and to rationalize hospital facilities by merging specialized units into general hospitals. The results of completing this stage in Kyrgyzstan are shown below:



The rationalization of major health facilities was accompanied by the introduction of new provider payment systems. These systems included financial incentives to increase efficiency. Also in stage two, assistance was provided to incorporate the Sanitary and Epidemiological Service (SES) into the reform process.

Stage 3: Deepen Pilot Site Health Systems Development and Widen Roll-Out Nationally

The last stage of the reform process – still under way in Kyrgyzstan – is completing the "inversion of the health care pyramid" and implementing the results from pilot sites nationwide. The goals of this stage in Kyrgyzstan are shown below:



It has been important for the success of reform in Kyrgyzstan that local health care facilities and policymakers enjoy flexible power to implement reforms. Another important factor was the support from the Ministry of Health and many international donors to provide training and retraining to health care practitioners and administrators. The experience in implementing the initial pilot programs provided policymakers at the national level with extensive information on the practical steps needed to carry out facility rationalization, training, the implementation of information systems and other tasks necessary to ensure effective reforms of primary health care.

2. CRITERIA FOR SELECTING HEALTH CARE PILOT SITES AND THE APPROACH TO DESIGNING PILOT PROGRAMS

2.1. INTRODUCTION

Under the auspices of the optimization program developed by the Ministry of Health, the AST team is identifying pilot sites to test aspects of the reforms necessary to optimize facilities and health provision at the local level. This section of this report describes the considerations weighed in the selection of appropriate pilot sites and the activities necessary to design the pilot projects to be implemented in those pilot sites.

The process is in two stages. The first stage involves the specification of criteria for selecting a pilot site. The second stage involves background, or baseline, analyses of existing health care resources and community needs to evaluate options and opportunities for the design of pilot programs to be carried out in the proposed pilot sites. These stages are described, in turn, below.

2.2. SELECTION CRITERIA

To consider a community for the implementation of pilot programs, certain "pre-conditions" for the implementation of reforms must be in place. These pre-conditions should include:

1. The host Government and agency funding the contract are in agreement regarding the selection of the pilot project area.
2. The host country government is willing to provide sufficient administrative and regulatory flexibility to enable the reforms to take place. This usually takes the form of creating a pilot project zone in

which restrictive normatives and other formal and informal constraints are set aside for a two to three year period.

3. There is clear evidence that there is interest in implementing reforms in the health care system and the social insurance/welfare system. Specifically, that concrete actions have been taken by the Marz, MOH, and MOSS in the region that are directed toward reforms.
4. That, as a pilot project area, the structure of the region chosen has sufficient elements in common with other regions in the country that a valid assumption can be made that structures developed and lessons learned in the pilot region will be applicable to other regions. This means that the pilot project needs to be comprised of all the elements that are found in other areas where the pilot may be replicated.
5. The pilot area should not be an exceptional or unusual case, - that is, it should not be the richest or the poorest, the most or the least isolated from the capital city, or the most favored by central authority in the capital.
6. The region of the pilot site should share most of the problems in the health and social sectors that are experienced by other regions throughout the country.
7. The region should possess some degree of depth in terms of MOH and MOSS staff below the level of the Marzpet and Head of the Marz Departments of Health and Social Security that are motivated to make the changes necessary to move forward reforms.
8. That the site under consideration not be overpopulated with other organizations already involved in activities that either duplicate or conflict with the likely reform activities being contemplated.
9. That the site be of a scope, organizationally and geographically, such that the organization assisting the MOH and MOS in the reforms has adequate financial, material, and technical capacity to provide the required resources.

2.3. ON-SITE ANALYSIS TO DESIGN OF PILOT HEALTH OPTIMIZATION PROGRAMS

Once a potential pilot site has been identified that meets all, or most, of these criteria, the project team must conduct an assessment of existing facilities and services and needs in order to develop options for the design of the pilot programs. These "pre-pilot" activities include:

1. Estimate of the financial and managerial sustainability of the restructured health care system is positive.
2. An in-depth assessment of financial structures, health facilities, health services delivery systems, and personnel by specialty, location, and tenure will be used to determine how feasible the reforms are.
3. Evidence that there is a sufficient level of cooperation within the Ministry of Health structure

2.3.1. Establishment of the pilot project area as an experimental zone

Before specific actions and work can begin on the development of a pilot site, an environment allowing experimentation must be created. In virtually all aspects of the health care system and the Yerevan Municipal and Marz Governments, there are laws, decrees, and regulations that prohibit or discourage changes in existing systems. Under administrative procedures, if an activity is not specifically allowed, it is not permitted.

Rules must be relaxed to allow optimization – but with MOH oversight to ensure that quality standards are maintained. Although Armenia's current economic distress has led to ignoring of many of the normative acts, decrees, and *prykazes* [treatment protocols or regulations] inherited from the soviet era, these regulations and practices continue to shape thinking. When a new idea is proposed, the first reaction is that it can't be done because it isn't permitted or it isn't specifically allowed. Two examples of how existing regulations may impede the implementation of a pilot project are:

- Example No 1. General specialists [internists, pediatricians, or Obstetricians/Gynecologists] who are intake physicians in polyclinics, when asked if they can treat certain medical condition, respond that although they have the skills to do so, they are not permitted to do so.
- Example No 2. Many aspects of the design of medical facilities today are regulated by Sanipet but are ergonometrically inappropriate and violate patients' privacy. These restrictions must be relaxed to allow optimization to take place.

The establishment of a pilot site should not give complete freedom to ignore all regulations but should rather allow flexibility to deal with regulatory obstructions on a case-by-case basis using the status of the pilot project as the justification. The management of the pilot project by designees of the Ministry of Health will ensure that overall quality standards are maintained.

2.3.2. Conceptual Basis of the Reforms in the health care delivery and financing systems,

Optimization will require greater flexibility to allow greater community involvement in defining health care needs and developing approaches to meet those needs. Primary health care providers will gain greater responsibility for serving their communities based on the new approach adopted by the MOH under which funding follows voluntary enrollment of people with local providers. If more people choose to enroll with a provider, that provider will receive more funding. To be financially successful, providers must respond to the needs of the patients served. Health care needs of the population are defined by the population seeking medical care.

Because the PHC provider will play a larger and larger role in deciding which patients are referred to what hospitals/diagnostic centers/specialists (and, therefore, influence the flow of funds), PHC providers and hospitals/diagnostic centers/specialists become more accountable to the patients. If the patient does not like the care of the PHC provider or the entity to which the patient has been referred by the PHC provider, the patient can enroll with a different PHC provider.

The structure of the PHC provider might be built upon a soviet model of the APTK [Russian acronym for a team comprised of an internist, pediatrician, obstetrics/gynecological specialists, and a manager of the practice manager. Family Group Practices are an interim step between what exists now and what will in future be a Primary Health Care center based upon newly trained family practitioners working singly or in group practices serving the primary needs of the community.

A model for true health insurance (as distinct from government funded health care), might be the Feldsher/Syelskye Soviets [village councils] which was also a soviet structure in which the feldsher post was supported by contributions from the community that were pooled and administered by elected members of the community committee. Experiments with this structure are being conducted by NGOs in Armenia (including OXFAM) in which families pay 500 drams/month to receive basic services and some medicines from the feldsher.

3. OPTIMIZATION: FIRST OPERATIONAL STEP IN RESTRUCTURING THE HEALTH CARE SYSTEM

3.1. IMPLEMENTING OPTIMIZATION IN A PILOT PROGRAM

The first step in optimizing the health care system involves establishing a broad-based, representative group – headed by an MOH representative but including local officials and community representatives -- to manage the process and agree upon recommendations for a local optimization plan. This group requires orientation and training to understand the reasons for and implications of the contemplated changes. The rationale for broad participation in this group is that, given that optimization sometimes entails personnel reductions, it is essential that the entire community be represented to minimize negative reaction.

The next step is to carry out an in-depth analysis of the financial structure and procedures of the Marz MOH structure as well as a mapping, inventory, and analysis of all health care facilities and personnel in the pilot site by function, location, specialty, and tenure. This must include collection of data on patient flow, referral patterns, and information flow.

When this information and analysis are completed, this Optimization Task Group will need to examine options for action. Optimization must be implemented in steps because of the scale of the changes being considered and the disruption of patient flows. It is also important that there be political input in this process due to the potential negative reaction to downsizing. Occupational options for staff who may be displaced by optimization program should also be considered.

3.2. DESIGN AND DEVELOPMENT OF MANAGEMENT INFORMATION SYSTEMS (MIS) AND HEALTH INFORMATION SYSTEMS (HIS) FOR PHC PROVIDERS:

Creating a system of Primary Health Care centers will need the development of Management Information Systems. These centers will need to be able to report on their activities to the State Health Agency, the Ministry of Health, and also to Marz or municipal health departments, as well as to manage their activities efficiently.

Systems of Health Information reporting will also need to be developed to allow the SHA and MOH to monitor the quality of health care and to ensure compliance with regulations enforcing standards of health practice. These systems will also be needed to report on services provided to patients (the basis for financial reimbursement), referrals, primary and secondary diagnoses, disease incidence, patient contacts, and prescribed medicines/treatment. The HIS is, in fact, the basic mechanism for Quality Assurance. The linkage between HIS and the financial MIS is through the classification of patient caseloads under DRG's [Diagnostically Related Groupings].

3.3. DEVELOPMENT OF PHC TREATMENT STANDARDS

The MOH must develop treatment standards for Primary Health Care centers in order to:

- Develop effective and comprehensive education and training programs for PHC providers;
- Reform licensing and accreditation procedures;
- Create a system of Quality Assurance;
- Implement procedures for patient referral;
- Set reimbursement rates for different types of treatment;
- Redefine the minimum benefits package, and
- Define the essential drug list for PHC.

Setting treatment standards will be a complex task because it will take a considerable time to train the new primary health care providers in the new skills they will need to provide more diversified medical services. Typically, in the West, training a physician in the skills needed to practice family medicine may take between one year and 18 months. This means that all the systems of the standards and procedures listed above must be built upon the criteria for a properly functioning Family Practice system. Quality Assurance systems must be flexible enough to adapt to the increasing capacities of the emerging Primary Health care center staffed by practitioners of family medicine. The MOH's basic enforcement mechanism for ensuring high standards of medical practice will be the Quality Assurance system. This must encourage rather than hold back the emergence of new and better ways of providing health care – and it must achieve this during the transition period when the health care pyramid, described in Section 1, above, is being inverted. The following subsections outline some of the considerations that a pilot program must address during the optimization process.

3.3.1. PHC Licensing and Accreditation

Licensing and accreditation of PHC providers and defining what Family Practice facilities should be comprised of will be a somewhat extended process. There are, as yet, few fully trained Armenian family practitioners in Armenia. Hence, there are few potential trainers. The first 9-month course to retrain licensed physicians as family practitioners ended in November 2000, graduating 27 physicians. The two-year Family Practice program at YSU will graduate 12 Family Practice specialists in May 2001. Neither the 9-month course nor the two-year curriculum includes clinical training that would meet Western standards. Medical accreditation is based upon medical education. Licensing is certification by governmental entities that a person has passed a government examination or is otherwise qualified to practice medicine. Given that the service population (urban and rural) of a family practice center is approximately 6,000 people, about 430 Family group or solo family practice centers would be needed to cover a population of 2.5 million in Armenia.

3.3.2. Referral System

A referral system for PHC does exist but it is in the form of the body of regulations (formal and informal) that are referred to as p*rykazes*. These prykazes require that 90% of medical conditions presented in outpatient facilities be referred to hospitals, diagnostic centers, or specialists. This creates a monopoly that has relegated PHC functions to that of a simple referral function. For PHCs based on comprehensive Family

Practice to function, new referral guidelines must be developed. These should give PHC providers greater freedom to treat a far wider range of medical conditions than is now the case. It is now estimated that in those Family Group Practices where some *prykazes* have been relaxed can treat between 50% and 60% of patients whom they see. This percentage is greater than if only a single internist, pediatrician, or Ob/Gyn practitioner operates because FGPs serve the entire family. Although FGPs functioning within relaxed prykazes now treat between 50% & 60% of patients, many experts believe that they could easily treat up to 90% of the patients they see if more *prykazes* were relaxed.

This means that a referral system for PHC needs to be developed allowing PHCs to expand services – based on their ability to demonstrate skills, knowledge, and clinical competence. The new referral system must be developed gradually as those demonstrated skills, knowledge, and clinical competences of PHCs increase through training and practice. Thus, the Quality Assurance system must be developed and in place to ensure that PHC physicians do not extend their services beyond their level of competence.

3.3.3. Basic Benefits Package (BBP)

The politically sensitive issue of the Basic Benefits Package (BBP) defines what medical services eligible individuals will receive free of charge or at discounted rates. Today, this is defined by State Order and varies from year-to-year. Unfortunately, because of under-funding of the health care portion of the state budget, local care providers are not fully reimbursed for BBP services. The package is beyond what the country can afford. There is no mechanism to determine the costs of services defined under State Order (except of pharmaceutical supplies). A primary care system operating under capitation must be able to establish the real, sustainable costs of the BBP.

3.3.4. Essential Drug List for Family Group Practices

The essential drug list for the country is based upon a list developed by the World Health Organization and includes between 280 and 360 medicines. The essential drug list for PHC centers must be reduced to an affordable and feasible length – probably no more than 50 and 100 items – which should be further divided into those administered in the PHC facility and those that can be sent home with the patient to be self-administered. The practice standards for PHC should include what classes of medicines are appropriate for PHC outpatient care and the essential drug list for PHC should reflect those standards.

3.3.5. Quality Assurance System for Family Practice

The QUALITY ASSURANCE system that is developed for PHC will have to be created from the description of family practice contained in the scope of the family practice specialty approved the MOH in 1999. However, until the PHC providers are all up to the standards of care described in the family practice specialty, the QUALITY ASSURANCE system will have to be individually adapted to the level of skill development of each FGP or FP because it's importance is to ensure that PHC providers are not exceeding their skills and training in terms of treating patients. This may well mean that there will be as many QUALITY ASSURANCE structures as there are PHC providers until all the PHC providers can meet the minimal standards for Family Practice specialty.

3.3.6. Coverage of Catchment Areas:

The location of PHC facilities is to be determined based upon the most convenient access of the population. In urban areas, this is a relatively straightforward structure and based upon a coverage rate of approximately 5,400 people per PHC provider. This means that, in the Town of Vanadzor, the approximate number of PHC providers would be 26 (assuming a population of about 125,000). In rural areas of Lori Marz, where *feldsher* units will serve as extenders of the PHC provider network, the coverage rate of PHC providers will be greater -- with 6,400 people served for each PHC provider. A total of 23 rural PHC providers would be needed to cover the estimated population of about 150,000. The total number of PHCs for Lori Marz – urban and rural -- would be 49.

3.3.7. Renovation and Equipping of FGP Facilities

The renovation of identified FGP facilities needs to be carried out following an analysis of patient processing procedures and the workload of the centers as well as an analysis by a medical facility designer. These analyses are needed because the Family Practice structure has different requirements from those of existing facilities. A client-focused patient care system must respect patient privacy, convenience, and courtesy. These qualities are absent from most existing facilities. Designing a patient-oriented PHC will require relaxation of the most rigid rules and regulations enforced by Sanipet [Sanitation and Epidemiological Stations]. The

equipment list must be kept to a minimum to reduce costs and ensure the sustainability of the new centers. Physicians tend to want sophisticated equipment whether or not it is practical and economically feasible for a PHC. The basic approach to equipping PHC facilities is to examine what basic procedures will be carried out in primary care, what diagnostic capability is appropriate to the PHC level, and what is financially practical.

3.3.8. Design of Training to Meet PHC Treatment Standards

Theoretical and clinical PHC training should be based on PHC treatment standards derived from western Family Practice Specialty curricula. In a separate report, the AST program is preparing an analysis of what such curricula would embody. Training for physicians entering family practice medical training presumes they will possess, at least, a specialty medical institute degree in internal medicine, pediatrics, or obstetrics/gynecology. The training curriculum for Family Group Practice physicians will focus on strengthening knowledge and skills in all three specialties as well as in areas of western family practice commonly excluded from Armenia's curriculum today. These areas include dermatology, psychosomatic illnesses, psycho-social issues, adolescent medicine, gerontology, etc.

In addition to filling these gaps, participants will receive additional training in computer-supported medical practice, client-oriented medicine, family health issues, personal hygiene, evidence-based medicine, medical nutrition, modern prescribing practices in PHC, as well as preventive health education. A part of the training will include interdisciplinary-training. For example, an internist experienced in dealing with adult male patients and female patients with non-gynecological problems may receive training from pediatricians in how to deal with children and from gynecologists on how to care for adult women with gynecological problems.

3.3.9. Training the Trainers for PHC Family Practice Physicians

With eight family practice specialists in Armenia who have yet to accumulate practical experience, Armenia must find ways to augment the potential supply of trainers in the short term. Unless such trainers are to be brought in from other countries, Armenia must develop additional trainers from the first cadres of graduates from Family Practice training programs of the NIH and YSU Department of Family Medicine. These FP trainers must themselves go through further training in the skills necessary to act as trainers. . One option might be to send some Armenian graduates of one of the Family Practice training institutions for this training. The design of an efficient program must be based on an assessment of the competence of the physicians who have completed either the 9-month Family Practice course of NIH or the 2-year program at YSU.

3.3.10. Training for PHC Nurses

The training curriculum for PHC nurses is predominantly non-medical and non-clinical although refresher training may need to be included in such things as taking blood pressure, drawing blood samples, and getting urine specimens. Most of the training required for PHC nurses to work in a FGP office will be in the management of patients in an outpatient facility, in entering data into computerized patient records, and in supporting the work of the physician team. In addition, there may well be a need to train a nurse to support the FGP by carrying out home visits. Home visits are a vestige of the soviet health care system. These visits, if programmed and carried out in an organized manner, can be productive in a number of ways and the total elimination of home visits would likely be strongly resisted. FGP physicians will have too may other responsibilities to conduct home visits themselves.

3.3.11. Identifying PHC Group Practice Managers

The function of the group practice manager is to handle the financial and administrative side of the practice. This will require that the candidates for practice manager positions be able to be trained in computerized cost accounting, ICD-10 coding [disease classifications], financial management, and personnel management. This means that the candidates for practice manager positions will not be active physicians – although with some business training, former physicians or nurses who have been made redundant under the optimization program might fill these positions.

4. OVERVIEW OF NEXT STEPS

Below is a description of the sequence of steps for a pilot optimization program in Lori Marz that will lead to the successful restructuring of health care services delivery systems and the financial structure required to support them. Although some of the individual steps in the reform process are not required for success – such as optimization, minimum benefits package and essential drug list for PHC – most of the other steps listed

below are essential elements in the restructuring process. The steps involved in reforms are each within a conceptual framework that is specifically directed at increasing accountability of health care providers to the patient, increasing the patient's physical and financial access to health care, and to ensure that the services provided are of high quality. These steps are:

1. Establishing the Criteria for Identification and Selection of Pilot Project areas.
2. Optimization: First Operational Step in Restructuring the Health Care System.
3. Design and Development of Management Information Systems and Health Information Systems for PHC Providers.
4. Development of PHC Treatment Standards.
5. PHC Licensing and Accreditation.
6. Referral System.
7. Minimum Benefits Package.
8. Essential Drug List for PHC.
9. Quality Assurance System for Family Practice
10. Coverage Mapping Based on Access to Service Populations.
11. Renovation and Equipping of Family Practice Facilities.
12. Design of Training to Achieve PHC Treatment Standards.
13. Training of PHC Provider Trainers.
14. Design of Training for PHC Nurses.
15. Training of PHC Nurses.
16. Design of Training for Family Practice Group Managers.
17. Training of Family Practice Group Managers.

On the following page, the next steps are show in greater detail.

5. PRELIMINARY PILOT SITE PROGRAMS AND WORKPLANS (2001)

	PILOT SITES			2001				Consultant Pool	Person Weeks
PROGRAMS:	Shirak	Lori	Yerevan	Q1	Q2	Q3	Q4		
1. FAMILY MEDICINE	**X**	**X**	**X**						
Assess physician training needs and develop curriculum				**x**	**x**	**x**		Chew/Funken with staff	3
Assess Nurse Training					**x**	**x**		L. Milburn	3
Curriculum developed					**x**			Staff	1
Mapping Service Area					**x**	**x**	**x**	Staff	8
Develop Practice Models				**x**	**x**			Architect	3
Assess Facility Needs				**x**	**x**			Staff	2
Assess Instrument/Equipment				**x**	**x**			Staff	2
Legal Analysis-Health Laws					**x**	**x**		J. Simidjiyski	4
Assess Quality Assurance					**x**	**x**	**x**	Alma/Zhamal	2
Assess HIS/CIS						**x**	**x**	Z. Kutanov	
Initiate Clinical Training						**x**	**x**	Staff	
Assess Vertical Programs and Pharmaceuticals					**x**	**x**	**x**	G. Hafnerwith staff	3
Assess Financial Needs					**x**	**x**	**x**	Purvis/Else	3
Develop Business Practice					**x**	**x**	**x**	Else/Purvis	
Conduct Management Education and Training					**x**	**x**	**x**	Milburn/Else /Purvis	3
Develop Public Education						**x**	**x**	A.Ibragimov	
Implementation						**x**	**x**	Staff	
2. HEALTH INFORMATION SYSTEMS	**X**	**X**	**X**						
Design Data Instrument				**x**				Staff	1
Inventory and Assessment of Existing Systems				**x**	**x**			Local Consultant w/ staff	3
Policy Decision on Design					**x**			Timoshkin	4
Assess System Needs					**x**			Timoshkin	
Report Findings and recommendations						**x**		Timoshkin	
Design new system (s/w, h/w, training, installation)						**x**	**x**	Timoshkin	
Develop Proposal:s/w, h/w						**x**	**x**	Timoshkin	
Procurement s/w and h/w						**x**	**x**	Staff	1
Training						**x**	**x**	Staff	1
Implementation							**x**	Staff	

	PILOT SITES			***2001***				***Consultant Pool***	***Person Weeks***
PROGRAMS:	***Shirak***	***Lori***	***Yerevan***	***Q1***	***Q2***	***Q3***	***Q4***		
3. LICENSURE OF HEALTH PROFESSION-ALS		**X**	**X**						
				x	**x**			Staff	1
Develop List of Specialties					**x**	**x**		Staff	6
Develop Database					**x**	**x**	**x**	Lisiten/Shaw	3
Revise Testing Criteria	**X**					**x**	**x**	Staff	
Develop new Testing						**x**	**x**	Staff	2
Develop S/W						**x**	**x**	Staff	
Purchase H/W						**x**	**x**	Staff	4
Develop Education							**x**	Staff	
Implement Testing									
4. **LICENSURE OF HEALTH FACILITIES**	**X**	**X**	**X**						
Develop Database				**x**	**x**			Staff	4
Develop Criteria					**x**	**x**		Purvis/Lisiten	3
Develop Measurement and Scoring System					**x**	**x**	**x**	Purvis/Lisiten	2
Train Inspectors					**x**	**x**	**x**	Staff	3
Develop Education Program					**x**	**x**	**x**	Staff	8
Implement Program						**x**	**x**	Staff	
5. OPTIMIZATION OF HEALTH SYSTEMS	**X**	**X**	**X**						
Review Marz Information				**x**				Clark/Purvis	3
Verify Finance Projections				**x**	**x**			Else/Purvis	3
Develop Implementation Plans					**x**	**x**		Purvis/Else	2
Identify Alternate Employ-ment Opportunities					**x**	**x**		Staff	4
Develop Management Educa-tion and Training					**x**	**x**	**x**	Purvis/Else /Milburn	3
Educate Personnel						**x**	**x**	Staff	4
Educate Community						**x**	**x**	Staff	6
Assist Implementation						**x**	**x**	Staff	10
Verify Savings						**x**	**x**	Else/Purvis	2
Publish Results							**x**	Staff	1
x = Work started or in-process during this period									
Staff = Local Project Staff, new hires, MOH, or local consultant									